

Senator John Ensign
Testimony—House Government Reform Subcommittee
April 25, 2006

Mr. Chairman, I want to thank you for holding this hearing on Yucca Mountain. The recent release of the Government Accountability Office Report entitled “Yucca Mountain: Quality Assurance at DOE’s Planned Nuclear Waste Repository Needs Increased Management Attention” further underscores the numerous questions and challenges that face this broken project.

Mr. Chairman, I remain dismayed, but frankly not surprised, that DOE has again cut corners on the very program which has been set up to verify that all scientific data and engineering designs submitted to support a license for Yucca Mountain are accurate and reliable. Despite its promises, DOE has been unable or unwilling to correct quality problems with data, models, software, and management since 1998 and continues to rely on costly and cumbersome reviews that, to date, have proven ineffective. For over 20 years, DOE has had problems developing and implementing the plans and procedures related to quality assurance.

- In April 2004 the GAO completed a report that Senator Reid and I requested on this very subject. The report was entitled, “Yucca Mountain: Persistent Quality Assurance Problems Could Delay Repository Licensing and Operation.” The report makes for extraordinary reading. It indicates that “some data sets could not be traced back to their sources, model and validation procedures were not followed.” It also shows the DOE’s arrogance. The DOE rejected the GAO findings and recommendations—while the NRC agreed with the conclusion but suggested flexibility in the ways to achieve and measure performance. With the results of the latest GAO report, which you commissioned, it is my hope that the DOE will be more willing to look at recommendations now that its quality assurance program has been revealed for what it is—a failure.

The GAO report states, “Although DOE announced, in 2004, that it was making a commitment to continuous quality assurance improvement . . . its adopted management tools have not been effective for this purpose.” The report concludes that before DOE submits its Yucca Mountain license application, “its aggressive ‘new path forward’ effort faces substantial quality assurance and other challenges.”

The quality assurance program was put in place as part of the NRC licensing process to verify the accuracy and credibility of work that has been completed to protect public health and safety. Simply relying on a “new path forward” is not enough to ensure safe storage of the world’s deadliest waste.

Mr. Chairman, I want to underscore just a few of the serious setbacks that the Yucca Mountain project has faced.

The 1982 Nuclear Waste Policy Act gave the Energy Department until 1998 to open a permanent underground geologic repository for high-level nuclear waste. While up until

recently Yucca Mountain was scheduled to open in 2010, that date has slipped indefinitely.

Recently, lawyers working for Nevada uncovered an Energy Department audit from 2000 that reviewed Yucca documents from 1997 to 1998. The audits showed problems with USGS documentation including that USGS officials claimed that they had calibrated instruments that did not exist at Yucca. This is emblematic of the shoddy work—and perhaps criminal acts—that have plagued this program.

A federal appeals court ruled in July 2004 that a new radiation safety standard must be established before the Department could file the licensing application with the Nuclear Regulatory Commission. The standard must be at the point when the waste will be at its peak radiation. That could be 300,000 years from the time the waste is sent to Yucca Mountain, instead of the arbitrary EPA standard of 10,000 years.

The EPA issued the new standard, but the results were no better the second time around. Instead of issuing a common-sense solution, the EPA repropose the standard in its entirety for the first 10,000 years, and then proposed a standard for the 10,000 to 1,000,000-year period that would be, by far, the weakest peak dose standard in the world. The President of the National Council on Radiation Protection has publicly opposed it. So, once again, sound science was sacrificed for expediency.

Mr. Chairman, we are beyond the point where we need to abandon this ill-conceived and problem-riddled project and focus on safer, smarter, and more reasonable alternatives.

We need to find another solution to our nuclear waste problem. I think that we need to amend the Nuclear Waste Policy Act of 1982 to require the title to all spent nuclear fuel, stored in dry casks, to be passed on to the DOE upon on-site transfer from storage pools to casks. Senator Reid and I introduced legislation to allow the DOE to assume liability of the waste onsite before it is transferred to Yucca Mountain. Conveying the title means the DOE will have full responsibility for the possession, stewardship, maintenance, and monitoring of all spent nuclear fuel.

Furthermore, we need to invest in new technologies at our national labs to recycle the waste without producing weapons-grade plutonium as a byproduct. A potentially viable option to "recycle" nuclear waste is Accelerator-driven Transmutation of Waste (ATW). Simply put, ATW transforms long-lived radioactive products into less hazardous materials and generates electricity as a byproduct. After 300 years, the residual activity and radiotoxicity of waste in the repository following the ATW process would be less than that for a non-assisted repository after 100,000 years. We know that we can store waste safely for 300 years. It can't be certain that Yucca Mountain will prove safe at the time of peak dose radiation as truly needed to protect the health of our citizens.

CONCLUSION

Mr. Chairman, I want to thank you for holding this hearing on the quality assurance problems that continue to plague this project. Year after year we get more questions instead of answers. So far, the Department of Energy has done nothing to instill confidence that the science underpinning the Yucca Mountain program is truly sound. I have eight years worth of evidence and empty promises to back up my position.

If there is a positive side to these numerous problems facing Yucca Mountain, it has given impetus to the nuclear industry and other supporters of enhanced nuclear power opportunities to be open to other ideas for waste disposal. I hope that our nation gives a long hard look at other options, because \$58 billion is a lot to pay for a repository that is not based on sound science and will not be licensed in the foreseeable future.

Deleted: Senator John Ensign¶
Testimony—House Government Reform Subcommittee¶
April 25, 2006¶

¶
Mr. Chairman, I want to thank you for holding this hearing on Yucca Mountain. Just over a year ago, I had the opportunity to testify in front of this committee regarding the discovery that a USGS scientist apparently falsified documents regarding the Yucca Mountain Quality Assurance Program. This discovery was just one in a long line of quality assurance problems that have plagued the Yucca Mountain project.¶

¶
The recent release of the Government Accountability Office Report entitled “Yucca Mountain: Quality Assurance at DOE’s Planned Nuclear Waste Repository Needs Increased Management Attention” further solidifies the numerous questions and challenges that face this broken project.¶

¶
Mr. Chairman, I remain dismayed, but frankly not surprised, that DOE has again cut corners on the very program which has been set up to verify that all scientific data and engineering designs submitted to support a license for Yucca Mountain are accurate and reliable. Despite its promises, DOE has been unable of ... [1]

Deleted: -

Deleted: proposed the standard in its entirety for the first 10,000 years, and then proposed a standard for the 10,000 to 1,000,000-year period that would be,

Deleted:

Deleted: by far, the weakest peak dose standard in the world. The President of the National Council on Radiation Protection has publicly opposed it ... [2]

Deleted: T

Deleted: the residual activity and radiotoxicity of waste in the repository following the ATW process

Deleted: after 300 years

Deleted: would be less than that for a non-assisted repository after 100,000 years. We know that we can store waste safely for 300 years. It can’t be

Deleted: It is not believable to suggest that we are

Deleted: certain that Yucca Mountain will prove safe

Deleted: for

Deleted: at the time of peak dose radiation as truly needed to protect the health of our citizens.¶

CONCLUSION¶

... [3]

Senator John Ensign

Testimony—House Government Reform Subcommittee

April 25, 2006

Mr. Chairman, I want to thank you for holding this hearing on Yucca Mountain. Just over a year ago, I had the opportunity to testify in front of this committee regarding the discovery that a USGS scientist apparently falsified documents regarding the Yucca Mountain Quality Assurance Program. This discovery was just one in a long line of quality assurance problems that have plagued the Yucca Mountain project.

The recent release of the Government Accountability Office Report entitled “Yucca Mountain: Quality Assurance at DOE’s Planned Nuclear Waste Repository Needs Increased Management Attention” further solidifies the numerous questions and challenges that face this broken project.

Mr. Chairman, I remain dismayed, but frankly not surprised, that DOE has again cut corners on the very program which has been set up to verify that all scientific data and engineering designs submitted to support a license for Yucca Mountain are accurate and reliable. Despite its promises, DOE has been unable or unwilling to correct quality problems with data, models, software, and management since 1998 and continues to rely on costly and cumbersome reviews that, to date, have proven ineffective. For over 20 years, DOE has had problems developing and implementing the plans and procedures related to quality assurance.

In April 2004 the GAO completed a report that Senator Reid and I requested on this very subject. The report was entitled, “Yucca Mountain: Persistent Quality Assurance Problems Could Delay Repository Licensing and Operation.” The report makes for extraordinary reading. It indicates that “some data sets could not be traced back to their sources, model and validation procedures were not followed.” It also shows the DOE’s arrogance. The DOE rejected the GAO findings and recommendations—while the NRC agreed with the conclusion but suggested flexibility in the ways to achieve and measure performance. It is my hope that the DOE will be more willing to look at recommendations now that its quality assurance program has been revealed for what it is—a fraud.

It seems that Yucca Mountain’s destiny is that of a mountain of lies and nothing else.

The quality assurance program was put in place as part of the NRC licensing process to verify the accuracy and credibility of work that has been completed to protect public health and safety. Simply relying on a “new path forward” is not enough to ensure safe storage of the world’s deadliest waste. Last year’s investigation raised the fact that the alleged fraud dealt with the issue of water infiltration and is critical because it impacts the corrosion of casks and the containment of radioactivity.

We’re not talking about how realistic this scenario would be for a science fiction novel or a movie script. The corrosion of casks and the containment of radioactivity are

frightening realities that Nevadans and all Americans face should this project proceed based on fraudulent science.

Mr. Chairman, I want to underscore just a few of the serious setbacks that the Yucca Mountain project has faced.

The 1982 Nuclear Waste Policy Act gave the Energy Department until 1998 to open a permanent underground geologic repository for high-level nuclear waste. While up until recently Yucca Mountain was scheduled to open in 2010, that date has slipped indefinitely.

Recently, lawyers working for Nevada uncovered an Energy Department audit from 2000 that reviewed Yucca documents from 1997 to 1998. The audits showed problems with USGS documentation including that USGS officials claimed that they had calibrated instruments that did not exist at Yucca. This is emblematic of the shoddy work—and perhaps criminal acts—that have plagued this program.

A federal appeals court ruled in July 2004 that a new radiation safety standard must be established before the Department could file the licensing application with the Nuclear Regulatory Commission. The standard must be at the point of when the waste will be at its peak radiation. That could be 300,000 years from the time the waste is sent to Yucca Mountain, instead of the arbitrary EPA standard of 10,000 years.

The EPA issued the new standard, only the results were no better the second time around. Instead of issuing a common-sense solution, the EPA re

Page 3: [2] Deleted

alexisb

4/25/2006 8:46:00 AM

by far, the weakest peak dose standard in the world. The President of the National Council on Radiation Protection has publicly opposed it. So, once again, sound science was sacrificed for expediency.

Mr. Chairman, we are beyond the point where we need to abandon this ill-conceived and problem-riddled project and focus on safer, smarter, and more reasonable alternatives.

We need to find another solution to our nuclear waste problem. I think that we need to amend the Nuclear Waste Policy Act of 1982 to require the title to all spent nuclear fuel, stored in dry casks, to be passed on to the DOE upon on-site transfer from storage pools to casks. Senator Reid and I introduced legislation to allow the DOE to assume liability of the waste onsite before it is transferred to Yucca Mountain. Conveying the title means the DOE will have full responsibility for the possession, stewardship, maintenance, and monitoring of all spent nuclear fuel. Through the Act, the DOE would also be made responsible for various maintenance and oversight that would be associated with implementation.

Furthermore, we need to invest in new technologies at our national labs to recycle the waste without producing weapons-grade plutonium as a byproduct. A potentially viable option to "recycle" nuclear waste is Accelerator-driven Transmutation of Waste (ATW). Simply put, ATW transforms long-lived radioactive products into less hazardous materials and generates electricity as a byproduct. After 300 years,

at the time of peak dose radiation as truly needed to protect the health of our citizens.

CONCLUSION

Mr. Chairman, I want to thank you for holding this hearing on the quality assurance problems that continue to plague this project. Year after year we get more questions instead of answers. So far, the Department of Energy has done nothing to instill confidence that the science underpinning the Yucca Mountain program is truly sound. I have eight years worth of evidence and empty promises to back up my position.

Senator Reid and I have asked the Department of Justice and the FBI to protect and preserve any and all records associated with the Yucca Mountain project. We have also asked for an independent investigation of the document review and DOE's license application. I hope this Committee will join us in these efforts. There needs to be an independent review of the science behind Yucca Mountain. And by independent, I mean by scientists who are experts in this field and have never been on the DOE payroll. I'm tired of hearing comments by DOE officials that the fraud isn't scientifically important because the computer models work. This is the kind of attitude that caused these problems in the first place—and the kind of approach which reveals that the DOE is not up to the job of fixing it.

On the broader question of nuclear waste storage, I want to underscore that Yucca Mountain is not a permanent solution to our nation's nuclear waste problem. Even with a central repository, there will continue to be nuclear waste stored at all operating reactor sites. Mr. Chairman, we produce 2,000 metric tons of nuclear waste a year. The DOE plans to transport 3,000 metric tons a year. Just do the math. Under the current plan we won't get rid of the nuclear waste backlog for nearly a century.

And at what cost do we forge ahead with the Yucca Mountain site? Then to bury it in a location where science has taken a back seat to fraud and politics—is completely reckless. We cannot afford to continue this project. No amount of data manipulation is going to make Yucca Mountain work.

If there is a positive side to these numerous problems facing Yucca Mountain, it has given impetus to the nuclear industry and other supporters of enhanced nuclear power opportunities to be open to other ideas for waste disposal. I hope that our nation gives a

long hard look at other options, because \$58 billion is a lot to pay for a repository cannot ensure it not based on sound science and will not be licensed in the foreseeable future.